

Receiving Report

Date: 12-8-30

Batch No: 138402

Supplier: Tempo

Dart P/O: 37529

Packing Slip: Yes No
 Invoice: Yes No
 Receipt: Cash Cr
 New Supplier Yes No

Release Note Attached: Yes No N/A
 Waybill Attached: Yes No
 Shipment Complete: Yes No N/A
 QC18 Inspection _____
 Work Order _____
 _____ N/A
 _____ N/A

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number

Initials of Receiver

QC12

Production/Admin:

Date

Received/Costing

Initial

Location



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO37529

Purchase Order Date 8/23/2017

PO Print Date 8/23/2017

Page Number 1 of 2

Order From :

TEMPO AEROSPACE INC.
205 FENMAR DR.
TORONTO, ON M9L 2X4
CA

VC-TEM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED
8/23/2017

Contact Name

Vendor Phone 416 746 2233

Buyer Diane Baker

Customer POID

Customer Tax # 10127-2607

Terms Net 30

Currency CAD

FOB Destination-Collect

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

Line Nbr	Reference Vendor Part Number	Description/ Mfg ID	Req Date/ CD Taxable	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
Line Comments			Promise Date			
Delivery Comments						
1	71400-11	4500-P-23Y YELLOW EPOXY PRIMER	8/30/2017	4.00	\$133.91	\$535.64

Deliver To: Andy

Line Total: \$535.64

2 71401-45

Quality Procurement Clauses

8/30/2017

1.00

\$0.00

\$0.00

8/30/2017

Procurement Quality Clauses
A005 RIGHT OF ENTRY

A014 SHELF LIFE CONTROLLED MATERIAL; 70% SHELF LIFE REQUIRED AT RECEIPT

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A040 NOTIFICATION OF QUALITY ESCAPE

A042 DART NOTIFICATION BY SUPPLIER

A043 RETENTION OF QUALITY DOCUMENTS

Line Total:

\$0.00

Note:



Tempo Aerospace Inc.

205 Fenmar Drive
Toronto-ON-M9L 2X4-Canada
Phone: 416.746.2233 Fax: 416.746.2235
orderdesk@tempo-aerospace.com

Packing Slip



Print Date : Aug-29-2017 11:46 AM

Printed By : 042A Print No. : 2

No. 39808

Pg:1/2

Ship To : [1]

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada

For : Account No. [DARTAS]

Dart Aerospace Ltd.
Attn: Diane Baker
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada
Tel. : 613.632.3336
Fax : 613.632.4443

S.O. No.	: 20006	Our Ref	:	Domestic AWB :
Cust P.O.	: PO37529	Your Ref	:	Int'l AWB :
Picked On	: Aug-28-2017	Trans Mode	: GROUND	Origin :
Shipped On	: Aug-29-2017	Req. Docs	: ALL	Transport :
Ship Via	: PUROLATOR GROUND	Lic No.	:	Nationality :
Incoterms	: FREE CARRIER	Expires	:	Trip/Flight :
Terms	: NET 30			

Ship Via Acct. : PUROLATOR GROUND Account No. 7 684 382

Our Contact : House Account Phone: 416.746.2233 Fax: 416.746.2235 Email: orderdesk@tempo-aerospace.com

Line	P/N & Description	Ordered	Qty Shipped	Back Order	Packaging
2	4500-PB-23Y-BG ✓ BASE: Yellow Epoxy Primer UID: 22582  Batch #: 20640 LINE WEIGHT: [KG] 22.280 LINE VOLUME: [ML] 15,144.000	4	4 ✓ GC	0	
3	4500-C-23 HARDENER: Epoxy UID: 22492  Batch #: 20655 LINE WEIGHT: [KG] 13.200 LINE VOLUME: [ML] 15,144.000	4	4 ✓ GC	0	

STATEMENT OF CONFORMITY:
Tempo certifies that the whole of the material listed above have been inspected and tested and conforms to the drawings and/or specifications listed on the Certificate of Conformance.

For a DANGEROUS GOODS EMERGENCY, call Canutec at the 24 hours number (613) 996-6666 /
Pour une MARCHANDISES DANGEREUSES URGENCE, appeler Canutec au nombre de
24 heures (613) 996-6666

Sept 8-30



Tempo Aerospace Inc.

205 Fenmar Drive
Toronto ON M9L 2X4 Canada
Phone: 416.746.2233 Fax: 416.746.2235
orderdesk@tempo-aerospace.com

Packing Slip



Pick Ticket No. 39808 Page :2/2

Trans Mode : GROUND
Req. Docs : ALL

Line	P/N & Description	Ordered	Qty Shipped	Back Order	Packaging
Box No.	Box(es) Type / Description Dimension Type [CM]	Gross Weight [KG]	Net Weight [KG]		Box(es) ID
1	4X1 Double Walled Brown Box L 14.750 x W 14.500 x H 8.250	0.000	0.000		a
2	4X1 Double Walled Brown Box L 14.750 x W 14.500 x H 8.250	0.000	0.000		b

Sept 8-30

PICKED BY :

Natalia Piseigna, INSIDE SALES/CUSTOMER

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ORIGINAL



Tempo Aerospace Inc.

205 Fenmar Drive

Toronto ON M9L 2X4 Canada

Phone: 416.746.2233 Fax: 416.746.2235

orderdesk@tempo-aerospace.com

Certificate of Conformance



Print Date : Aug-29-2017 11:46 AM

Printed By : 042A Print No. : 1

Your P.O.: PO37529

No. : 219206

Pg:1/1

Sold To : Account No. [DARTAS]

Dart Aerospace Ltd.
Attn: Diane Baker
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada
Tel. : 613.632.3336
Fax : 613.632.4443

Shipped To :

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Canada
Tel. : 613.632.3336
Fax : 613.632.4443

Line	P/N & Description	Qty Ordered	Shipped	Unit Sell Price	Amount
1	4500-P-23Y Yellow Epoxy Primer Priority [P4]: P4 - Regular ESD Spec1: BAMS 565-001 RvD GrA Cat1 Ty1 MFG: (TEM2233) TEMPO AEROSPACE INC Same bases different catalyst	4 KT	4 (Qty. Back 0)		
2	4500-PB-23Y-BG BASE: Yellow Epoxy Primer Pick Ticket / Packing Slip No. : 39808 Priority [P4]: P4 - Regular ESD Batch #: 20640 Cat Batch#: 20655 MFG: (TEM2233) TEMPO AEROSPACE INC Mfg Date: Jul-13-2017 Shelf Life Expiration: Jul-13-2019 LINE WEIGHT: [KG] 22.280 LINE VOLUME: [ML] 15,144.000	4 GC	4 (Qty. Back 0)		
3	4500-C-23 HARDENER: Epoxy Pick Ticket / Packing Slip No. : 39808 Priority [P4]: P4 - Regular ESD Batch #: 20655 MFG: (TEM2233) TEMPO AEROSPACE INC Mfg Date: Jun-29-2017 Shelf Life Expiration: Jul-29-2019 LINE WEIGHT: [KG] 13.200 LINE VOLUME: [ML] 15,144.000	4 GC	4 (Qty. Back 0)		

STATEMENT OF CONFORMITY:

I certify that the whole of the material listed above has been inspected and tested and conforms to the drawings and/or specifications quoted on, or referenced by your Purchase Order.

Abbreviations:

FS = Federal Standard 595C



Zuneera Zaheer, Chemist, QA Manager



Test Report

8/29/17

Sales Order: 20006

Packing Slip: 39808

Customer: Dart Aerospace Ltd.
Account No.: DARTAS

Customer PO: PO37529

Kit Code: 4500-P-23Y

QSHIP 4 KT

Yellow Epoxy Primer

BAMS 565-001 RvD GrA Cat1 Ty1

BOM Part: 4500-PB-23Y-BG

Batch: 20640

QSHIP 4 GC

BASE: Yellow Epoxy PrimerSpec Ref. / Tempo
Method

Batch No.: 20640

DOM: July 2017

7.2.4 Method M-L-AA-3-b	Condition in container When tested according to FTMS 141 Method 3011, the base component and the hardener shall be free of skins, gelling and foreign contamination, and shall be capable of being mixed into a homogeneous material. The component containing the pigments shall show no caking or separation of the pigments.	Pass/Fail Value	Result: Passed
7.2.6 Method M-L-AA-12	Non volatile content When tested in accordance with ASTM D2369, the non-volatile content for the base component shall not vary more than ± 2 percent from the value established by the supplier on the qualification report. When tested according per ASTM D1353, the thinner, solvent, or reducer shall not have more than 25 mg of non-volatile content per 100 ml.	Numeric Value	Result: 72.73 Passed Range: 70.99 to 73.89
7.2.7 Method M-L-AA-18	Weight per gallon When tested according to ASTM D1475, the weight per gallon of the base component and the hardener shall not vary more than ± 0.20 lbs/gal from the value established by the supplier in the qualification report.	Numeric Value	Result: 12.24 Passed Range: 12.08 to 12.48
7.3.2 Method M-L-AA-17	Viscosity When mixed in the ratio specified by the manufacturer, and after the induction time specified by the manufacturer, the mixed material shall have the following viscosity: (a) Grade A 14 to 23 seconds when measured with a Gardco EZ Zahn cup No. 2	Numeric Value	Result: 22.00 Passed Range: 14.00 to 23.00
7.3.1 Method M-L-AA-14	Pot Life When tested in accordance with 7.4.3.1, a one-quart sample of mixed material shall show no signs of lumping, seeding or separation, and shall be capable of meeting the requirements of each test specified in Section 7.4.3.1.	Numeric Value	Result: 28.00 Passed Range: 14.00 to 28.00
7.3.3 Method M-L-AA-15	Spraying properties When tested in accordance with FTMS 141 Method 4331, and after the induction time specified by the manufacturer, the mixed material shall exhibit satisfactory spraying characteristics and leveling properties. The primer shall show no sags, runs or streaks, and shall cure to a hard, smooth finish, free from seeds, blisters, blushing or other surface irregularities	Pass/Fail Value	Result: Passed
7.3.4 Method M-L-AA-2	Colour When viewed in a MacBeth Daylight Booth, Illuminate C (or equivalent), the colour of the cured primer at a dry film thickness of 1.0 to 1.5 mils shall match BAC 452 green or BAC 377 yellow as specified in the Purchase Order. This colour requirement does not apply for water-based primer.	Alphanumeric Value	Result: PASS Passed Target: BAC 377 yellow
7.3.6 Method M-L-AA-8	Gloss The material shall be available as lusterless. When applied per Section 7.4.2 and tested per ASTM D523 and at a dry film thickness of 1.5 - 2.0 mils the 60 degree specular gloss of the cured primer shall be 6 maximum for Grade A. For Grade B, a maximum gloss level of 20 is acceptable.	Numeric Value	Result: 3.50 Passed Range: 0.00 to 6.00
7.3.6 Method M-L-AA-4	Drying Time When tested in accordance with FTMS 141 method 4061, the material shall have the following curing characteristics at $75 \pm 5^{\circ}\text{F}$ ($24 \pm 3^{\circ}\text{C}$) and $50 \pm 5\%$ relative humidity: a) Tack Free: 4 hours maximum b) Dry Through: 8 hours maximum	Pass/Fail Value	Result: Passed
7.3.9 Method M-L-AA-1	Adhesion wet tape When tested in accordance with 7.4.3.4 there shall be no loss of adhesion (i.e. no removal of the primer, rating 5B per ASTM D3359) and no blistering, wrinkling or other film defects.	Alphanumeric Value	Result: PASS Passed Target: 5B
7.3.12 Method M-L-AA-7	Fluid resistance When tested in accordance with 7.4.3.7 there shall be no blistering, wrinkling or other film defects except slight discoloration. In addition, there shall be no loss of adhesion of the primer (i.e. no removal of the primer, rating 5B per ASTM D3359), and the pencil hardness shall not be less than HB after observing the recovery period, as described in Section 7.4.3.7.	Alphanumeric Value	Result: PASS Passed Target: 5B hardness, \geq HB hardness



PT: 39808

Page 1 of 2

Customer: Dart Aerospace Ltd.
Account No.: DARTAS

Customer PO:

PO37529

Spec Ref. / Tempo
Method

Batch No.: 20640

DOM: July 2017

7.3.11 Impact resistance

Method M-L-AA-10 When tested in accordance with 7.4.3.6, the primer shall not show any film defects or adhesion failures when impacted by 50 inch pounds on the forward side and 30 inch pounds on the reverse side.

Pass/Fail Value
Result: Passed

BOM Part: **4500-C-23**

Batch: 20655

QSHIP 4 GC

HARDENER: Epoxy

Spec Ref. / Tempo
Method

Batch No.: 20655

DOM: June 2017

Condition in container

Method M-L-AA-3-c The catalyst component shall be clear and clean.

Pass/Fail Value
Result: Passed

3.1.3 Condition in container

Method M-L-AC-03-c The catalyst component shall be clear and clean.

Pass/Fail Value
Result: Passed

7.2.7 Weight per gallon

Method M-L-AA-18 When tested according to ASTM D1475, the weight per gallon of the base component and the hardener shall not vary more than ± 0.20 lbs/gal from the value established by the supplier in the qualification report.

Numeric Value
Result: 7.27 Passed
Range: 7.08 to 7.48

Non volatile content

Method M-L-AA/AC-12 No more than ± 2 percent from the theoretical value

Numeric Value
Result: 20.36 Passed
Range: 20.00 to 21.50

*** END OF TEST REPORT***

Thank you for choosing Tempo Aerospace!

PT: 39808

Page 2 of 2



TEMPO AEROSPACE INC.

AIRCRAFT AND AUTOMOTIVE FINISHES

INDUSTRIAL PAINTS, LACQUERS, VARNISHES

205 FENMAR DRIVE, TORONTO, ONTARIO CANADA M9L 2X4

TEL: (416) 746 2233 FAX: (416) 746 2235

E-MAIL: sales@tempo-aerospace.com

ISO9001 REGISTERED

MATERIAL SAFETY DATA SHEET

- I - PRODUCT INFORMATION -

MANUFACTURER

TEMPO AEROSPACE INC.
205 FENMAR DRIVE
TORONTO, ONTARIO, CANADA
M9L 2X4

Telephone: (416) 746 2233

Emergency telephone: (416) 746 2233
CANUTEC (24 hours): (613) 996 6666

SUPPLIER

Same.

Description : YELLOW BASE EPOXY PRIMER
Product Code : 4500-PB-23Y
Product Class : Primer
HMIS Ratings : HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 1 PPE: G
WHMIS Classification: B2, D2a, D2b
TDG CLASSIFICATION : PAINT
TDG Class 3 UN1263 Packing Group II

- II - PREPARATION INFORMATION -

Prepared by : ALAN BOLYOS
Telephone : (416) 746 2233
Date Prepared : 05/18/16

- III - HAZARDOUS INGREDIENTS -

		CAS Reg.No.	% by wt.	ppm-TLV-mg/m3	SOURCE
i	-Epichlorhydrin/Bisphenol A Epoxy Resin	125036-25-3	10-30%	N.AV.	N.AV. MFG.
ii	-Epoxy phenol novolac	128064-14-4	10-30%	N.AV.	N.AV. MFR
iii	-Ethyl Benzene	100-41-4	1.0-5%	100	435 ON833/00
iv	-Methyl Ethyl Ketone	78-93-3	1.0-5%	200	590 CCOHS
v	-PM Ether/Propylene Glycol Methyl Ether	107-98-2	1.0-5%	100	360 ON654/86

vi	-Silicon Dioxide, Amorphous	68855-54-9	1.0-5%	N.AV.	3	ACGIH
vii	-Silica, cristobalite	14464-46-1	1.0-5%	N.AV.	0.1	ACGIH
viii	-Strontium chromate	7789-06-2	10-30%	N.AV.	.0005	ON833/00
ix	-Talc, non fibrous	14807-96-6	1.0-5%	N.AV.	2	ON833/00
x	-Titanium dioxide	13463-67-7	1.0-5%	N.AV.	10	ON833/00
xi	-Toluene	108-88-3	5-10%	50	188	CCOHS
xii	-Wollastonite	13983-17-0	10-30%	N.AV.	N.AV.	MFR
xiii	-Xylene	1330-20-7	5-10%	100	435	ACGIH

(N.AV. = not available. N.AP. = not applicable.)

Notes:

- i -flammable, irritant (EP110007)
LD50 mg/kg: 5100 , oral , Rat.
LC50(4 hr): 1500 ppm , Rabbit.
- ii -Irritant (EP110008)
- iii -flammable, irritant (ET090001)
LD50 mg/kg: 3500 , oral , Rat.
LC50(4 hr): 4000 ppm , Rat.
- iv -flammable, irritant (ME090006)
LD50 mg/kg: 2740 , oral , Rat.
LC50(4 hr): 11700 ppm , Rat.
- v -flammable, irritant (PM090002)
LD50 mg/kg: 5660 , oral , Rat.
LC50(4 hr): 7000 ppm , Rat.
- vi -irritant (SI010001)
LD50 mg/kg: 3160 , oral , Rat.
- vii -respiratory irritant (SI010005)
- viii -carcinogenic (ST020001)
LD50 mg/kg: 600 , oral , Rat.
- ix -irritant (TA060001)
- x -irritant (TI060001)
LD50 mg/kg: 24000 , oral , Rat.
- xi -flammable, toxic (TO090001)
LD50 mg/kg: 2600 , oral , Rat.
LC50(4 hr): 8800 ppm , Rat.
- xii -irritant (WO060001)
- xiii -flammable, irritant (XY090001)
LD50 mg/kg: 4300 , oral , Rat.
LC50(4 hr): 5000 ppm , Rat.

- IV - PHYSICAL DATA -

ODOUR AND APPEARANCE: Viscous liquid with solvent odor.
VOLATILE BY VOLUME : 47.47%
SPECIFIC GRAVITY : 1.472
EVAPORATION RATE : FASTER than N'Butyl Acetate.
FLASHPOINT : -9 Degrees Centigrade (Setaflash)
LEL : 1.0
STABILITY : STABLE
HAZ. POLYMERIZATION : WILL NOT occur.
VOC (gm/lt) : 405.8 (water in)
VOC (gm/lt) : 405.8 (water out)
HAPs (% wt) : 9.39

- V - FIRE AND EXPLOSION HAZARD -

EXTINGUISHING METHOD

Extinguish with carbon dioxide, foam, dry chemical. Water may be ineffective at putting out fires.

SPECIAL FIRE-FIGHTING PROCEDURES

Self contained positive pressure breathing apparatus should be worn by fire fighting personnel. Exposure to heat builds pressure in closed containers. To prevent bursting, cool with stream of water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Flammable; material will ignite readily at ambient temperatures. Avoid use in the vicinity of sparks, static, or any source of ignition. Product is a static accumulator. Use proper grounding procedures when transferring. Vapours are heavier than air and may travel along the ground to ignition sources distant from the point of material handling and flash back. Vapours will collect in low laying areas and confined spaces.

HAZARDOUS COMBUSTION PRODUCTS

Complete and partial combustion of the paint itself or the dried film will produce carbon monoxide, carbon dioxide and various other toxic hydrocarbons.

- VI - REACTIVITY DATA -

CONDITIONS TO AVOID

To maintain stability, avoid ignition sources.

INCOMPATIBILITY - MATERIALS TO AVOID

To maintain product integrity, avoid contact with strong acids, alkalies, reactive metals oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS

See Section 5D for Hazardous Combustion Products.

HAZARDOUS POLYMERIZATION - CONDITIONS TO AVOID

None known.

- VII - TOXICOLOGICAL PROPERTIES -

ACUTE EFFECTS OF OVEREXPOSURE

SKIN CONTACT:

Irritating on contact. Contains an ingredient which may be absorbed through the skin. See ingestion for symptoms. Repeated or prolonged exposure may cause dry skin and dermatitis.

EYE CONTACT:

Liquid is irritating when splashed directly into the eyes. Severe exposure to vapours will irritate the eyes.

INHALATION:

Vapours and mist may cause nervous system depression, characterized by nausea, dizziness, loss of co-ordination, etc. Inhalation of product may irritate the respiratory system.

INGESTION:

May cause gastrointestinal irritation. Ingestion, like inhalation, may cause central nervous system depression with similar symptoms. However, small amounts aspirated into the respiratory system during ingestion or subsequent vomiting will cause severe lung irritation, (chemical pneumonitis).

CHRONIC EFFECTS OF OVEREXPOSURE

Reports have associated repeated and prolonged occupational overexposure to solvents with brain and nervous system damage. Prolonged inhalation of crystalline silica dust in high concentrations may lead to silicosis, a chronic lung disease. IARC has evaluated crystalline silica as a level 2A carcinogen, (limited human evidence). Chromium and certain chromium compounds are classified by IARC and NTP as known carcinogens, (Group 2B). ACGIH lists chromates of lead as substances of suspect carcinogenicity to man. Laboratory studies show that only calcium, strontium and zinc chromates produce statistically significant increases in the number of carcinomas. No such increases were seen with lead

chromate. Chronic exposure has resulted in liver and kidney damage in laboratory animals. Xylene has been classified as a possible embryotoxin based on recommendations from the World Health Organization. Chronic inhalation of talc in powdered form may result in talc pneumoconiosis.

IRRITANCY

Product is a moderate eye and skin irritant. Product is a respiratory irritant.

SENSITIZATION

Product is essentially nonsensitizing.

- VIII - FIRST AID MEASURES -

SKIN CONTACT

Wash thoroughly with soap and water. Remove contaminated clothing. Seek medical attention if irritation persists.

EYE CONTACT

Flush with warm water until irritation subsides. If irritation persists, seek medical attention.

INHALATION

Remove to fresh air. Perform artificial respiration if necessary. Get medical help immediately.

INGESTION

Dilute by drinking 1 to 2 fluid ounces of water if conscious. Do not induce vomitting. Call for prompt medical attention.

- IX - PREVENTIVE MEASURES -

SPILL OR LEAK PROCEDURES

Use nonsparking tools and explosion proof equipment. Eliminate ignition sources. Stop spill at source. Pump up excess. Soak up residue with a suitable absorbant and collect absorbate in a container for disposal. For larger spills, dike to prevent spreading, notify the proper authorities. Restrict access to area.

WASTE DISPOSAL METHOD

Incinerate or landfill in accordance with local, provincial and federal legislation. Never dispose of by means of public waters or drainage systems.

PERSONAL PROTECTIVE EQUIPMENT

Nitrile, neoprene or rubber gloves and long sleeves should be worn to prevent skin contact. Chemical goggles should be worn to prevent eye contact. Do not wear contact lenses. A NIOSH approved organic vapour respirator with dust and mist prefilter may be required in the absence of adequate environmental controls, (when TLV exceeded). Safety shower and eye bath should be available. Approved barrier creams may be used as skin protection.

VENTILATION AND ENGINEERING CONTROLS

Use adequate ventilation (general or local) to maintain the ambient concentration below the occupational exposure limit. Local exhaust is recommended.

TRANSPORTATION, STORAGE, AND HANDLING PROCEDURES

Avoid generation of excessive dust and dust inhalation during sanding and spraying operations. Use good housekeeping practices to avoid accidental ingestion. Keep away from food and feed products. Wash thoroughly after handling, and before eating or smoking. Store in a cool, dry, well ventilated area. Do not freeze. Remove from sources of ignition. Contaminated rags may catch fire spontaneously. Store under water in a closed container before cleaning. Do not reuse empty containers. Recondition or dispose of in the proper manner. Use with adequate ventilation. Avoid skin contact. Protect your eyes. Avoid generating vapours or mists.



TEMPO AEROSPACE INC.

AIRCRAFT AND AUTOMOTIVE FINISHES

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TEL: (416) 746 2233 FAX: (416) 746 2235

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ISO9001 REGISTERED

MATERIAL SAFETY DATA SHEET

- I - PRODUCT INFORMATION -

MANUFACTURER

TEMPO AEROSPACE INC.
205 FENMAR DRIVE
TORONTO, ONTARIO, CANADA
M9L 2X4

Telephone: (416) 746 2233

Emergency telephone: (416) 746 2233
CANUTEC (24 hours): (613) 996 6666

SUPPLIER

Same.

Description : EPOXY PRIMER CATALYST
Product Code : 4500-C-23
Product Class : CATALYST
HMIS Ratings : HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 0 PPE: G
WHMIS Classification: B2, D2a, D2b
TDG CLASSIFICATION : PAINT RELATED MATERIAL
TDG Class 3 UN1263 Packing Group II

- II - PREPARATION INFORMATION -

Prepared by : ALAN BOLYOS
Telephone : (416) 746 2233
Date Prepared : 10/03/14

- III - HAZARDOUS INGREDIENTS -

	CAS Reg.No.	% by wt.	ppm-TLV-mg/m ³	SOURCE
(i) n-Butanol	71-36-3	10-30%	50	150
(ii) Isopropanol	67-63-0	5-10%	400	980
(iii) Xylene	1330-20-7	30-60%	100	435

(N.AV. = not available. N.AP. = not applicable.)

Notes:

- (i) - flammable, irritant
LD50 mg/kg: 800 , oral , Rat. (BU090001)
LC50(4 hr): 8000 ppm , Rat.
- (ii) - flammable, irritant
LD50 mg/kg: 4710 , oral , Rat. (IS090004)
LC50(4 hr): 17000 ppm , Rat.
- (iii)- flammable, irritant
LD50 mg/kg: 4300 , oral , Rat. (XY090001)
LC50(4 hr): 5000 ppm , Rat.

- IV - PHYSICAL DATA -

ODOUR AND APPEARANCE: Characteristic odor of solvents present.
VOLATILE BY VOLUME : 82.03%
SPECIFIC GRAVITY : 0.871
EVAPORATION RATE : SLOWER than N'Butyl Acetate.
FLASHPOINT : 18 Degrees Centigrade (SETAFLASH CC)
LEL : 1.1
STABILITY : STABLE
HAZ. POLYMERIZATION : WILL NOT occur.
VOC (gm/lt) : 687.6 (water in)
VOC (gm/lt) : 687.6 (water out)
HAPs (% wt) : 40.97

- V - FIRE AND EXPLOSION HAZARD -

EXTINGUISHING METHOD

Extinguish with carbon dioxide, foam, dry chemical, or water spray.

SPECIAL FIRE-FIGHTING PROCEDURES

Self contained positive pressure breathing apparatus should be worn by fire fighting personnel. Exposure to heat builds pressure in closed containers. To prevent bursting, cool with stream of water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Flammable; material will ignite readily at ambient temperatures. Avoid use in the vicinity of sparks, static, or any source of ignition. Product is a static accumulator. Use proper grounding procedures when transferring.

Vapours are heavier than air and may travel along the ground to ignition sources distant from the point of material handling and flash back. Vapours will collect in low laying areas and confined spaces.

HAZARDOUS COMBUSTION PRODUCTS

Complete and partial combustion of the paint itself or the dried film will produce carbon monoxide, carbon dioxide and various other toxic hydrocarbons.

- VI - REACTIVITY DATA -

CONDITIONS TO AVOID

To maintain stability, avoid ignition sources.

INCOMPATIBILITY - MATERIALS TO AVOID

To maintain product integrity, avoid contact with strong acids, reactive metals oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS

See Section 5D for Hazardous Combustion Products.

HAZARDOUS POLYMERIZATION - CONDITIONS TO AVOID

None known.

- VII - TOXICOLOGICAL PROPERTIES -

ACUTE EFFECTS OF OVEREXPOSURE

SKIN CONTACT:

Irritating on contact.

Contains an ingredient which may be absorbed through the skin. See ingestion

for symptoms.

Repeated or prolonged exposure may cause dry skin and dermatitis.

EYE CONTACT:

Liquid is irritating when splashed directly into the eyes.

Severe exposure may cause eye burns resulting in permanent injury.

INHALATION:

Vapours and mist may cause nervous system depression, characterized by nausea, dizziness, loss of co-ordination, etc.

Inhalation of product may irritate the respiratory system.

INGESTION:

May cause gastrointestinal irritation.

Ingestion, like inhalation, may cause central nervous system depression with similar symptoms. However, small amounts aspirated into the respiratory system during ingestion or subsequent vomiting will cause severe lung irritation, (chemical pneumonitis).

CHRONIC EFFECTS OF OVEREXPOSURE

Reports have associated repeated and prolonged occupational overexposure to solvents with brain and nervous system damage.

Chronic exposure has resulted in liver and kidney damage in laboratory animals. There is some evidence that long term overexposure to n-butanol may result in hearing loss.

Xylene has been classified as a possible embryotoxin based on recommendations from the World Health Organization.

IRRITANCY

Product is a moderate eye and skin irritant.

Product is a respiratory irritant.

SENSITIZATION

Product is essentially nonsensitizing.

- VIII - FIRST AID MEASURES -

SKIN CONTACT

Wash thoroughly with soap and water. Remove contaminated clothing.

EYE CONTACT

Flush with warm water until irritation subsides. If irritation persists, seek medical attention.

INHALATION

Remove to fresh air. Perform artificial respiration if necessary. Avoid direct mouth to mouth contact. Get medical help immediately.

INGESTION

Dilute by drinking 1 to 2 fluid ounces of water if conscious. Do not induce vomiting. Call for prompt medical attention.

- IX - PREVENTIVE MEASURES -

SPILL OR LEAK PROCEDURES

Use nonsparking tools and explosion proof equipment.

Eliminate ignition sources. Stop spill at source. Pump up excess. Soak up residue with a suitable absorbant and collect absorbate in a container for disposal. For larger spills, dike to prevent spreading, notify the proper authorities.

Ventilate area. Wear adequate personal protective equipment.
Restrict access to area.

WASTE DISPOSAL METHOD

Incinerate or landfill in accordance with local, provincial and federal legislation. Never dispose of by means of public waters or drainage systems.

PERSONAL PROTECTIVE EQUIPMENT

Nitrile, neoprene or rubber gloves and long sleeves should be worn to prevent skin contact. Chemical goggles should be worn to prevent eye contact. Do not wear contact lenses. A NIOSH approved organic vapour respirator with dust and mist prefilter may be required in the absence of adequate environmental controls, (when TLV exceeded). Safety shower and eye bath should be available. Approved barrier creams may be used as skin protection. Teflon or viton gloves recommended.

VENTILATION AND ENGINEERING CONTROLS

Use adequate ventilation (general or local) to maintain the ambient concentration below the occupational exposure limit.

TRANSPORTATION, STORAGE, AND HANDLING PROCEDURES

Contaminated rags may catch fire spontaneously. Store under water in a closed container before cleaning.

Store in a cool, dry, well ventilated area.

Remove from sources of ignition.

Do not reuse empty containers. Recondition or dispose of in the proper manner. Use with adequate ventilation. Avoid skin contact. Protect your eyes.



Technical Data Sheet

Tempo Aerospace Inc. Tel: 416.746.2233 Fax: 416.746.2235

Updated October 2013

4500-P-23 (B,G,Y)

4500-P-23 (B,G,Y)

Strontium Chromate Epoxy Primer

4500-P-23 is a fluid and corrosion resistant epoxy/polyamide primer. It is specifically designed for the aerospace industry's demanding performance requirements for interior components.

SPECIFICATION

(B) DHMS.C4.01 Type 2, Grade A
(G, Y) BAMS 565-001, GR.A, Cat.1, Ty. I

OUTSTANDING CHARACTERISTICS

- Excellent Adhesion
- Excellent Hydraulic Fluid Resistance (Skydrol)
- Outstanding Solvent Resistance
- Superb Corrosion

PHYSICAL DATA

Finish:	Flat primer finish
Colour:	B-Green (FS 34258), G-Green (BAC 452) and Y-Yellow (BAC 377)
Weight Solids:	52.06% ± .5%
Volume Solids:	34.76% ± .5%
V.O.C.	557 g/L
Density:	9.75 lbs/USG
Dry Film Weight:	0.009 lbs/ft ² /mL 1.81 g/m ² /μ

RECOMMENDED SYSTEMS

- 6600, 6700, 6800 - Lines DHMS C4.04 Ty. 4
- 4600, 4700, 4800 - Lines DHMS C4.04 Ty. 2
- 7600, 7700, 7800 - Lines BAMS 565-002

Note: all physical and chemical resistance tests conducted after one week cure time at 20-25°C (70-75°F) on properly cleaned substrate.



SURFACE PREPARATION

Chemical conversion coating per MIL-C-5541 Class 1A, or BAPS 160-020.

-OR-

Chromic acid anodize and seal per MIL-A-8625 Type I or BAPS 160-010



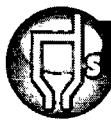
INSTRUCTIONS FOR USE

Components:	Two
Cure:	4500-C-23
Mix Ratio:	1:1 by volume, Base / Cure
Induction Time:	15-30 minutes
Pot Life:	8 hours @ 25°C (75°F)
Reducer:	4500-S-23/23X



MIXING INSTRUCTIONS

Mix 1:1 by volume Base/Cure. We recommend using a squirrel mixer or equivalent and mix thoroughly for 5 minutes minimum. Allow 15 - 30 minutes induction time before using. Mix only sufficient material to use within a 8-hour period. Always add Cure component to Base component - **NEVER THE REVERSE**. Never mix coating or individual component from one vendor with that of another vendor.



SPRAYING VISCOSITY

14-23 seconds #2 EZ Zahn



APPLICATION METHOD

Allow for application loss and surface irregularities.

Application:	Conventional or HVLP
Reduction:	Reduce with 4500-S-23/23X



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RESISTANCE TABLE

Impact Resistance	No flaking or cracking when subjected to 50 inch pounds impact direct and 30 inch pounds reverse.
Hardness	Pencil Hardness F minimum
Fuel Resistance	Withstands immersion of Jet A1 Fuel for 14 days at ambient Temperatures without showing any defects. After a 24 hour recovery period, the primer regains its pretest hardness.
Lubricating Oil Resistance	Withstands immersion in lubricating oil at 25°C for 14 days without showing any softening, blistering, or loss of adhesion.
Hydraulic Fluid Resistance	Withstands immersion in Skydrol hydraulic fluid without showing any defects after 30 days.
Salt Spray Resistance	With a scribed film at an angle of 6°, it exhibits no blistering, lifting of the primer, or substrate corrosion after exposure to 5% salt spray following ASTM B117 on treated aluminum substrate 3000 hours.
Water Resistance	No blistering or loss of adhesion after 14 hours immersion in distilled water at ambient temperature. Regains its pretest hardness after a recovery period of 24 hours.

SUBSTRATES:

- Aluminum

EQUIPMENT



Using a Binks Mach I HVLP with a 93P or 92AP air cap and a #92 Fluid tip, inlet pressure should be approximately 70-80 PSI (9 PSI at air cap) and 10-12 PSI on the pressure pot. Accuspray 19 or 12 series HVLP, use a #36 or #43 fluid tip and needle with a #6 air cap with approx 22 to 40 PSI inlet pressure (5-9 at the air cap) and 10-12 PSI on the pressure pot. For Accuspray 10 series HVLP cup gun use a #36 or #43 fluid tip and needle with a #6 air cap with approx 5-9 inlet pressure. Devilbiss JJ502 conventional spray gun uses a 765-air cap and a .0425 needle nozzle with 45-55 PSI gun pressure and 10-12 on pressure pot.



RECOMMENDED FILM BUILD THICKNESS & COVERAGE

Total Dry Film Recommendation 0.5 – 0.8 Mils (12.5 - 20 microns)
Calculated Coverage at:
1.0 Mils: 551 ft²
25 Microns: 51.20 m²



ENVIRONMENTAL CONDITIONS

Temperature: 15 - 35°C (59 - 95°F)
Relative Humidity: 10 - 80%
Note: Substrate and air temperature must be a minimum of 3°C (5°F) above the Dew Point



DRY TIME

Dry time at 24°C ± 3°C (75°F), 50% relative humidity.
To Touch: 10 mins
Tack Free: < 1 hour
To Recoat: 1 - 2 hours
Dry Through: < 8 hours
Dry hard: < 24 hours
May be forced dried: Flash off is 15 - 30 minutes at R/T
Force Dry 60 - 90°C (140 - 200°F) for
20 - 30 minutes



CLEAN UP

Cleaner: 20-4301, 4500-S-23/23X, S-10



STORAGE & SHIPPING

Flash Point: 2°C
Shelf Life: 24 months unmixed for unopened cans



SAFETY PRECAUTIONS

Please refer to the Material Safety Data Sheet (MSDS) for information regarding health, physical and environmental hazards, handling precautions and recommended first aid procedures. For industrial and automotive use only.